REMARKS

In the Office Action, the Examiner noted that claims 36-38 are pending in the application, and that claims 36-38 are rejected. By this response, claims 36-38 continue unamended. In view of the following discussion, the Applicant submits that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. §102. Thus, the Applicant believes that all of these claims are now in condition for allowance.

REJECTION OF CLAIMS UNDER 35 U.S.C. §102(e)

The Examiner rejected claims 36-38 as being anticipated by Moeglein (United States patent 6,215,441, issued April 10, 2001). The rejection is respectfully traversed.

More specifically, the Examiner alleged that Moeglein teaches a plurality of satellite positioning system (SPS) reference receivers dispersed over a geographical region that receive satellite ephemeris data. (Final Office Action, pp. 2-3). The Examiner further alleged that the ephemeris data is transmitted to a digital processing system that receives pseudorange data from a SPS mobile receiver and computes position of the SPS mobile receiver using the ephemeris data and the pseudorange data. (Final Office Action, p. 3). The Examiner stated: "[T]he transmission of the satellite ephemeris data as taught by Moeglein et al. above, clearly aids in reducing code and frequency uncertainty by eliminating the need to derive the ephemeris data directly from each and every satellite which might be in view of the mobile receiver." (Final Office Action, p. 4). The Examiner concluded by stating that essentially the only reason ephemeris data is transmitted to a mobile SPS receiver is to reduce code and frequency uncertainties. (Final Office Action, p. 5). The Applicant respectfully disagrees.

Moeglein generally teaches a system having satellite position system (SPS) reference receivers dispersed over a geographic region for receiving satellite navigation information (e.g., ephemeris) (See Moeglein, Abstract). A location server receives the satellite ephemeris data from the reference network and transmits the appropriate satellite ephemeris data to the mobile receiver through a communication network.

(Moeglein, col. 14, lines 17-23). Moeglein further teaches that the location server may also transmit Doppler prediction data and/or satellite almanac and/or pseudorange corrections to the mobile receiver. (Moeglein, col. 14, lines 38-41). The ephemeris data is used along with pseudorange data to compute a position of the mobile device in a conventional manner. (Moeglein, col. 7, lines 24-29).

In view of the forgoing, Moeglein does not teach each and every feature recited in Applicant's claim 36. Namely, Moeglein does not teach or suggest processing satellite signals received at the mobile GPS receiver using the ephemeris to reduce code and frequency uncertainty. Specifically, Applicant's claim 36 positively recites:

> "A method of receiving global positioning system (GPS) satellite signals comprising:
> receiving satellite ephemeris at a first location;
> communicating the satellite ephemeris to a mobile GPS receiver at a second location; and
> processing satellite signals received at the mobile GPS receiver using the ephemeris to reduce code and frequency uncertainty in the mobile GPS receiver to improve acquisition sensitivity of the mobile GPS receiver." (Emphasis added).

Notably, the Applicant's invention as recited in claim 36 advantageously uses ephemeris information to reduce both the range of possible satellite signal frequencies, and the range of possible satellite signal delays, at a mobile GPS receiver when computing pseudoranges. This allows the invention to search a small range during the two-dimensional satellite signal search process thereby eliminating a time consuming sequential search and allowing for longer signal integration times. (See Applicant's specification, page 14, line 31 through page 15, line 13; Figure 6).

Moeglein, however, does not teach or suggest using ephemeris information to reduce uncertainty in the two-dimensional satellite signal search process. Rather, Moeglein uses ephemeris data in a conventional manner with pseudoranges already obtained from a mobile device to locate position of a mobile device. Moeglein specifically states: "It will be appreciated that the satellite ephemeris data obtained from the network through the modem or other interface 54 may be used in a conventional manner with the pseudoranges obtained from the mobile GPS receiver in order to compute the position information for the mobile GPS receiver." (Moeglein, col. 7, lines

24-29). As understood by those skilled in the art, ephemeris information is conventionally used to determine satellite positions with respect to time and not used to reduce code and frequency uncertainty during the satellite signal search process. (See The New IEEE Standard Dictionary of Electrical and Electronics Terms, page 446, (5th Edition, 1993)).

Thus, in contrast to the Applicant's invention, Moeglein uses the ephemeris data in a conventional manner only after the satellite signal search process is performed and the pseudoranges are computed at the mobile receiver. While the device of Moeglein does not have to derive ephemeris data directly from each satellite, Moeglein still must search for satellite signals to compute pseudoranges. Using ephemeris data in a conventional manner with pseudoranges to determine device position fails to teach or suggest using ephemeris data to reduce code and frequency uncertainty during the satellite signal search process. In other words, Moeglein does not teach or suggest using ephemeris data during the pseudorange computation process by reducing code and frequency uncertainty during the satellite signal search process.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). Since Moeglein is devoid of any teaching or suggestion of processing satellite signals received at the mobile GPS receiver using the ephemeris to reduce code and frequency uncertainty, Moeglein fails to teach each and every element of Applicant's claim 36. Therefore, the Applicant contends that claim 36 is not anticipated by Moeglein and, as such, fully satisfies the requirements of 35 U.S.C. §102(e).

Furthermore, claims 37 and 38 depend, either directly or indirectly, from claim 36 and recite additional features therefor. Since Moeglein does not teach or suggest Applicant's invention as recited in claim 36, Moeglein also fails to teach or suggest Applicant's invention as recited dependent claims 37 and 38. Therefore, the Applicant contends that claims 37 and 38 are not anticipated by Moeglein and, as such, fully satisfy the requirements of 35 U.S.C. §102(e).

CONCLUSION

Thus, the Applicant submits that none of the claims presently in the application are anticipated under the provisions of 35 U.S.C. § 102. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of any adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Raymond R Moser Jr., Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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